Inte ional Application No

PCT/GB2004/004216 A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61K31/4365 A61P35/00 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 A61K A61P Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, CHEM ABS Data, BIOSIS C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. P,X WO 2004/054505 A (KOLODZIEJ STEPHEN A; 1-15 VERNIER WILLIAM F (US); LEE LEN F (US); PHARMACI) 1 July 2004 (2004-07-01) page 123, line 26 page 259, line 20 claim 23 X DD 275 688 A (UNIV LEIPZIG) 1-15 31 January 1990 (1990-01-31) the whole document X WO 93/13664 A (SCHERING AGROCHEMICALS LTD) 15 22 July 1993 (1993-07-22) example 50 -/--Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance Invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention filing date cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled 'O' document referring to an oral disclosure, use, exhibition or document published prior to the international filing date but later than the priority date claimed In the art. "&" document member of the same patent family Date of the actual completion of the International search Date of mailing of the international search report 21 January 2005 28/01/2005 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3018

Skjöldebrand, C

Intu onal Application No
PCT/GB2004/004216

| X X X | SHERIF S M ET AL: "BETA-ENAMINONITRILES IN HETEROCYCLIC SYNTHESIS: A NOVEL ONE-POT SYNTHESIS OF THIOPHENES AND THEIR FUSED DERIVATIVES" JOURNAL OF CHEMICAL RESEARCH. SYNOPSES, LONDON, GB, 1996, pages 356-357, XP001166932 ISSN: 0308-2342 the whole document  LEISTNER SIEGFRIED ET AL: "1,3-Bis(pyridin-2-ylthio)propan-2-ones, Bis(thieno(2,-3-b)pyridin-2-y 1)ketones and 5H-Bispyrido(3,2':4,5)thieno(2,3-b:2',3'-e )pyridin-11-ones" ARCHIV DER PHARMAZIE (WEINHEIM), vol. 326, no. 12, 1993, pages 959-961, | Relevant to claim No. |
|-------|--|-----------------------|
| X     | SHERIF S M ET AL: "BETA-ENAMINONITRILES IN HETEROCYCLIC SYNTHESIS: A NOVEL ONE-POT SYNTHESIS OF THIOPHENES AND THEIR FUSED DERIVATIVES" JOURNAL OF CHEMICAL RESEARCH. SYNOPSES, LONDON, GB, 1996, pages 356-357, XP001166932 ISSN: 0308-2342 the whole document  LEISTNER SIEGFRIED ET AL: "1,3-Bis(pyridin-2-ylthio)propan-2-ones, Bis(thieno(2,-3-b)pyridin-2-y 1)ketones and 5H-Bispyrido(3,2':4,5)thieno(2,3-b:2',3'-e )pyridin-11-ones" ARCHIV DER PHARMAZIE (WEINHEIM),  | 15                    |
| X     | IN HETEROCYCLIC SYNTHESIS: A NOVEL ONE-POT SYNTHESIS OF THIOPHENES AND THEIR FUSED DERIVATIVES"  JOURNAL OF CHEMICAL RESEARCH. SYNOPSES, LONDON, GB, 1996, pages 356-357, XP001166932  ISSN: 0308-2342 the whole document  LEISTNER SIEGFRIED ET AL: "1,3-Bis(pyridin-2-ylthio)propan-2-ones, Bis(thieno(2,-3-b)pyridin-2-y 1)ketones and 5H-Bispyrido(3,2':4,5)thieno(2,3-b:2',3'-e)pyridin-11-ones" ARCHIV DER PHARMAZIE (WEINHEIM),   |                       |
| A     | "1,3-Bis(pyridin-2-ylthio)propan-2-ones,<br>Bis(thieno(2,-3-b)pyridin-2-y 1)ketones<br>and<br>5H-Bispyrido(3,2':4,5)thieno(2,3-b:2',3'-e)pyridin-11-ones"<br>ARCHIV DER PHARMAZIE (WEINHEIM),  | 15                    |
|       | XP009042878<br>ISSN: 0365-6233<br>page 960   |                       |
|       | WO 03/037860 A (KASIBHATLA SRINIVAS RAO; ZHANG LIN (US); BOEHM MARCUS F (US); FAN JUN) 8 May 2003 (2003-05-08) the whole document  | 1-15                  |

mational application No. PCT/GB2004/004216

| Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)   |
|--|
| This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:   |
| 1. X Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:   |
| Although claims 12-14 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.  |
| Claims Nos.:     because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically: |
| Claims Nos.:     because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).   |
| Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)   |
| This International Searching Authority found multiple inventions in this international application, as follows:  |
| This mematical searching authority found multiple inventions in this international application, as follows.  |
|  |
|  |
|  |
| As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.   |
| 2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.  |
|  |
| 3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:                        |
|  |
|  |
| 4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:            |
|  |
| Remark-on-Protest The additional search fees were accompanied by the applicant's protest.  |
| No protest accompanied the payment of additional search fees.  |

<sup>-</sup> Crm PCT/ISA/210 (continuation of first sheet (2)) (January 2004)

Information on patent family members

Inte onal Application No
PCT/GB2004/004216

| Patent document<br>cited in search report |   | Publication date |                | Patent family<br>member(s)                      | Publication<br>date                    |
|---|---|------------------|----------------|---|--|
| WO 2004054505                             | A | 01-07-2004       | WO<br>US<br>US | 2004054505 A2<br>2004127519 A1<br>2004127511 A1 | 01-07-2004<br>01-07-2004<br>01-07-2004 |
| DD 275688                                 | Α | 31-01-1990       | DD             | 275688 A1                                       | 31-01-1990                             |
| WO 9313664                                | A | 22-07-1993       | AU<br>CN<br>WO | 3262593 A<br>1076697 A<br>9313664 A2            | 03-08-1993<br>29-09-1993<br>22-07-1993 |
| WO 03037860                               | Α | 08-05-2003       | CA<br>EP<br>WO | 2464031 A1<br>1440072 A2<br>03037860 A2         | 08-05-2003<br>28-07-2004<br>08-05-2003 |